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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/575,662

04/14/2006

Kiyoko Ueda

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2199

32172

7590

10/15/2008

DICKSTEIN SHAPIRO LLP

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EXAMINER

BURNEY, RACHEL L

ART UNIT

PAPER NUMBER

1795

MAIL DATE

DELIVERY MODE

10/15/2008

PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

<b>Office Action Summary</b>	<b>Application No.</b> 10/575,662	<b>Applicant(s)</b> UEDA ET AL.	
	<b>Examiner</b> Rachel L. Burney	<b>Art Unit</b> 1795	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 24 June 2008.
- 2a) ☒ This action is **FINAL**.                      2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1,2,5-7 and 9-22 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1,2,5-7 and 9-22 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All    b) ☐ Some \*    c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)                       | 4) <input type="checkbox"/> Interview Summary (PTO-413)           |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | Paper No(s)/Mail Date. _____                                      |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| Paper No(s)/Mail Date <u>03/10/2008</u> .  | 6) <input type="checkbox"/> Other: _____                          |

## **DETAILED ACTION**

### ***Information Disclosure Statement***

1. The information disclosure statement (IDS) submitted on 03/10/2008 was filed after the mailing date of the application on 04/14/2006. The submission is in compliance with the provisions of 37 CFR 1.97. Accordingly, the information disclosure statement is being considered by the examiner.

### ***Claim Objections***

2. Claim 9 is objected to because of the following informalities: the heading of claim 9 is still listed as “new” and should be “previously presented”. Appropriate correction is required.

### ***Claim Rejections - 35 USC § 102***

3. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

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4. Claims 1, 5-7, 10, 15, and 20-22 are rejected under 35 U.S.C. 102(b) as being anticipated by US Patent 6548168, Mulvaney et al.

With respect to claims 1, 5-7, 10, and 20-22 Mulvaney discloses a particle which are formed by reacting a particle with a bifunctional ligand, then are coated (column 7, lines 26-42), wherein the particle may comprise a metal such as copper or silver, or a metal oxide core (column 4, lines 64-67) which the second functional group of the bifunctional ligand may comprise a silica (column 5, line 53 – column 6, line 38) and may have multiple layers of coatings (column 6, lines 58-59). The particles may further have a polymer coating (column 6, lines 39-43).

With respect to claim 15, Mulvaney discloses the process of producing the particle of claim 5 as discussed above, wherein the particle is spherical (column 4, lines 52-53).

### ***Claim Rejections - 35 USC § 103***

5. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

6. Claim 2 is rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6548168, Mulvaney et al. as applied to claim 1 above, and further in view of US

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Patent 5853938, Nakazawa et al. Mulvaney discloses the process of producing the particle of claim 1 as discussed above, wherein the particle is heated (column 12, line 55) and the desired particle is spherical (column 4, lines 52-53), but fails to teach a rapid cooling to produce a spherical product. Nakazawa discloses a coated particle that is rapidly cooled after the formation of the coating layer to prevent coalescence and produce a spherical product (column 6, lines 45-53). It would have been obvious to one of ordinary skill in the art at the time of the invention to use a rapid cooling in the process of Mulvaney to produce spherical particles as taught in Nakazawa.

7. Claims 9, 11-14, and 16-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over US Patent 6548168, Mulvaney et al. as applied to claims 5-7 and 15 above, and further in view of European patent application 0949027, Nakatsuka et al., US PGPub 2001/0051311, Hakata, and US PGPub 2002/0191983, Mizuno et al. Mulvaney discloses the process of producing the particle of claim 1 as discussed above, but fails to teach the desired size of the particle or the combination of the particle and an electrophotographic carrier. Nakatsuka discloses a particle having a metal core, which may be copper (PP 0007), which has a first coating of silica (PP 0051) and a possibly polymer coating (PP 0016), which may be used in an ink, a toner, or a pigment (PP 0001). Nakatsuka fails to teach the desired size of the particle or the combination of the particle and an electrophotographic carrier. Hakata discloses that developers comprise toners and carriers (PP 0020), but fails to teach the desired size of the toner particle. Mizuno teaches a toner in a developer which has an average particle diameter of about 5-30mm, which is the ideal range to improve image resolution and the separating

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property of the image (PP 0123). It would have been obvious to one of ordinary skill in the art at the time of the invention to use the particle of Mulvaney in a toner because it is similar to the toner particle of Nakatsuka, and to use the toner in a developer, which comprises an electrophotographic carrier, as taught by Hakata, having a particle size of 5-30mm to improve image resolution and the separating property of the image formed by the toner, as taught by Mizuno.

### ***Response to Arguments***

8. Applicant's arguments filed 06/24/2008 have been fully considered but they are not persuasive. Applicant argues that Mulvaney does not teach a polymerized resin layer. The examiner admits that the polymers referred to in the first action were for increasing viscosity, however Mulvaney does also teach that the particles have a polymer coating, as discussed above.

### ***Conclusion***

9. **THIS ACTION IS MADE FINAL.** Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the

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shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the mailing date of this final action.

10. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rachel L. Burney whose telephone number is (571)272-9802. The examiner can normally be reached on Mon-Thurs: 7:30-6:00 PM, EST.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Mark Huff can be reached on 571-272-1385. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

/Mark F. Huff/  
Supervisory Patent Examiner, Art Unit 1795

RLB